

Remarks

Claims 1, 10, 14-15, and 19-31 are pending in the Application.

Claims 2-9, 11-13, and 16-18 are cancelled.

Claims 1, 10, 14-15, and 19-31 stand rejected.

Claims 1, 10, and 15 are amended.

I. REJECTIONS UNDER 35 U.S.C. § 102

Examiner has rejected Claims 1, 4, 10, 13, 15, 18-19, 22-23, 26, 28, and 31 under 35 U.S.C. § 102(e) as being anticipated by Zhou et al. (U.S. Patent No. 6,280,697).

Claims 4, 13, and 18 have been cancelled.

Claims 1, 10, and 15 have been amended to include elements not taught by Zhou et al. Whereas Zhou et al. teach a reversible intercalation process (e.g., a rechargeable battery), claims 1, 10, and 15 now require the alkali material to be deposited as a layer on the carbon nanotube layer. Applicant respectfully points out that a person of ordinary skill in the art would clearly differentiate an intercalation process from a process which deposits a layer of material, and an intercalated material from a material with a layer on it. Note that on page 5, lines 2-4 of the current office action, Examiner differentiates between intercalation and deposition.

With regard to claims 19, 22-23, 26, 28, and 31, Applicant respectfully points out that each of these claims require a low pressure gaseous environment, an element Zhou et al. fails to teach.

As a result of the foregoing, Applicant respectfully requests that the Examiner withdraw the rejection of these claims under 35 U.S.C. § 102(e) as being anticipated by Zhou et al.

II. REJECTIONS UNDER 35 U.S.C. § 103

Examiner has rejected Claims 2-3, 11-12, 14, 16-17, 20-21, 24-25, 27, and 29-30 under 35 U.S.C. § 103(a) as being unpatentable over Zhou et al. (U.S. Patent No. 6,280,697).

Examiner is reminded that:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Claims 2-3 and 16-17 have been cancelled.

Claim 10 (from which 11-12 and 14 depend) has been amended to provide for the alkali material to be deposited as a layer on the carbon nanotube layer. While the intercalation process of Zhou et al. provides for the electrochemical reduction of metal ions in interstitial regions of a carbon nanotube electrode, such a process does not provide for a layer of alkali material, and a person of ordinary skill in the art would be unable to use such a process to generate such a layer. Furthermore, no suggestion or motivation to form such a layer is found within Zhou et al. because it is an object of that invention to reversibly intercalate metal ions into the nanotube structure in a manner analogous to that seen in lithium batteries employing graphite as an intercalatable electrode.

With regard to Claims 20-21, 24-25, and 29-30, Applicant respectfully points out that each of these claims require a low pressure gaseous environment, an element Zhou et al. fails to teach. Zhou et al. is directed at rechargeable (primarily lithium) batteries, wherein the electrodes cannot function in a low pressure gaseous environment. Consequently, Zhou et al. actually

teaches away from claims 20-21, 24-25, and 29-30, and Examiner's rejection of these claims under 35 U.S.C. § 103(a) fails to meet the requirements for such a rejection as outlined above.

As a result of the foregoing, Applicant respectfully requests that the Examiner withdraw the rejection of Claims 11-12, 14, 20-21, 24-25, and 29-30 under 35 U.S.C. § 103(a) as being unpatentable over Zhou et al.

III. CONCLUSION

As a result of the foregoing, it is asserted by Applicant that the Claims in the Application are now in a condition for allowance, and respectfully request an early allowance of such Claims.

Applicants respectfully request that the Examiner call Applicants' attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Respectfully submitted,

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